

In The Claims:

1. (currently amended) A retainer for a ball bearing formed in a generally annular shape and having a plurality of pockets arranged in a circumferential direction to rollably hold a plurality of balls along a pitch circle, respectively; the pockets each having an opening on outer and inner sides in the radial direction of the retainer; the balls having a diameter and a rolling surface; the pockets each having an inner peripheral surface which is formed in one of a cylindrical surface and a concave surface having an inner diameter which increases from the opening of the pockets on the outer side toward the opening of the pockets on the inner side, the inner peripheral surface comprising a radially inner section which is located inward of the pitch circle of the balls in the radial direction of the retainer, and having an the inner diameter of the radially inner section being larger than the diameter of the balls, such that the gap between the radially inner section of the inner peripheral surface of the pockets and the rolling surface of the balls gradually increases toward the opening of the pockets on the inner side in the radial direction of the retainer, and that the maximum inscribing circle with respect to the opening of the pockets on the outer side in the radial direction of the retainer has a diameter smaller than the diameter of the balls.

2. (Withdrawn) A retainer for a ball bearing formed in a generally annular shape and having a plurality of pockets arranged in a circumferential direction to rollably hold a plurality of balls, respectively, the balls having a rolling surface having a radius of curvature, the pockets each having an inner peripheral surface formed in a spherical concave shape having a radius of curvature slightly larger than the radius of curvature of the rolling surface of the balls, such that part of the inner peripheral surface of the pockets coming in contact with the rolling surface of the balls rolling in the pockets is formed with a recess reaching at least the inner periphery of the retainer.

3. (currently amended) The retainer of claim 1, wherein the retainer is of the crown-shape type, and comprises an annular main portion and a plurality of elastic pieces provided on one side in the axial direction of the annular main portion to define a pocket between a pair of the circumferentially adjacent ones of the resilient pieces, such that the main portion and elastic pieces

US 10/747,669

2

KAM 17.895B Response to Office Action of 12.13.05_84134263_1_100799_00090

define an inner peripheral surface which is formed in a partial conical concave shape that is inclined such that the diameter of the inner peripheral surface closer to the tip ends of the resilient pieces is larger than the diameter of the inner peripheral surface closer to the other side in the axial direction of the annular main portion.

4. (Withdrawn) A ball bearing comprising an inner race having an outer peripheral surface formed with an inner-race track, an outer race having an inner peripheral surface formed with an outer-race track, such that a space is formed between the outer peripheral surface of the inner race and the inner peripheral surface of the outer race, a plurality of balls rollably provided between the inner-race track and the outer-race track in the space, a retainer for a ball bearing formed in a generally annular shape and having a plurality of pockets arranged in a circumferential direction to rollably hold a plurality of balls along a pitch circle, respectively; the pockets each having an opening on outer and inner sides in the radial direction of the retainer; the balls having a diameter and a rolling surface; the pockets each having an inner peripheral surface comprising a radially inner section which is located inward of the pitch circle of the balls in the radial direction of the retainer, and having an inner diameter larger than the diameter of the balls, such that the gap between the radially inner section of the inner peripheral surface of the pockets and the rolling surface of the balls gradually increases toward the opening of the pockets on the inner side in the radial direction of the retainer, and that the maximum inscribing circle with respect to the opening of the pockets on the outer side in the radial direction of the retainer has a diameter smaller than the diameter of the balls, the retainer for rollably holding the balls arranged with an interval in the circumferential direction, and a pair of seal plates having an outer peripheral edge attached to the inner peripheral surface of the outer race at the opposite axial ends of the other race, respectively, and an inner peripheral edge provided close to or in sliding contact with the outer peripheral surface of the inner race at the opposite axial ends of the inner race, such that the openings at the axially opposite ends of the space are blocked by the pair of the seal plates.

5. (currently amended) A rolling bearing comprising an inner race having an outer peripheral surface formed with an inner-race track and a seal groove formed in the outer peripheral surface at

US 10/747,669

3

KAM 17.895B Response to Office Action of 12.13.03_84134263_1_100799_00090

an axial end thereof, the seal groove having a wall surface and a bottom, an outer race having an inner peripheral surface formed with an outer-race track and a seal groove formed at an axial end thereof, such that a space is formed between the outer peripheral surface of the inner race and the inner peripheral surface of the outer race, a plurality of rolling elements rollably provided between the inner-race track and the outer-race track in the space, and a seal plate formed in a generally annular shape, comprising an elastic member and a core metal for reinforcing, and having an outer peripheral edge fitted in the seal groove generally in the inner peripheral surface of the outer race, and an inner peripheral edge defined by the end edge of the elastic member in sliding contact with the wall surface of the seal groove in the outer peripheral surface, and a dust seal lip located on the outside of the inner peripheral edge and facing the outer peripheral surface of the inner race, the end edge of the elastic member comprising an inclined side surface opposing the wall surface of the seal groove, an inner peripheral surface located radially inward of the inclined side surface and opposing the bottom of the seal groove, and a continuation portion for continuously connecting the inclined side surface with the inner peripheral surface of the end edge, the continuation portion being in sliding contact with the wall surface of the seal groove, the angle between the wall surface of the seal groove and the inclined side surface of the end edge being in a range from 10 degrees to 45 degrees in the state where the continuation portion is in contact with the wall surface, the bottom of the seal groove being in parallel to the inner peripheral surface of the seal groove or being inclined relative to the inner peripheral surface of the end edge such that the gap between the bottom of the seal groove and the inner peripheral surface of the end edge increases toward the axially outer end of the inner race, and the angle between the bottom of the seal groove and the inner peripheral surface of the end edge being in a range from 0 degrees to 30 degrees.

6. (original) The rolling bearing of Claim 5, wherein the continuation portion is formed in a curved surface of an arc shape in cross section.

7.-11. (cancelled)

US 10/747,669

4

KAM 17.895B Response to Office Action of 12.13.05_R4134262_1_100799_00000